# **SUSPENSION**

02 SECTION

GENERAL PROCEDURES....02-10 REAR SUSPENSION...... 02-14 WHEEL ALIGNMENT......02-11 TECHNICAL DATA .......... 02-50 FRONT SUSPENSION .......02-13 SERVICE TOOLS............. 02-60

02-10

# 02-10 GENERAL PROCEDURES

PRECAUTION (SUSPENSION) 02–10–1	Power Steering Components
Wheels and Tires	Removal/installation02–10–1
Removal/installation	
Suspension Links	
Removal/installation	

# PRECAUTION (SUSPENSION)

A3U021001013W01

## Wheels and Tires Removal/installation

1. The removal and installation procedures for the wheels and tires are not mentioned in this section. When a wheel is removed, retighten it to 89—117 N·m {9—12 kgf·m, 66—86 ft-lbf}.

# **Suspension Links Removal/installation**

1. Tighten any part of the suspension that uses rubber bushings only after the vehicle has been lowered and unloaded.

#### Note

• Unloaded ... Fuel tank is full. Engine coolant and engine oil are at specified levels. Spare tire, jack and tools are in designated positions.

# **Power Steering Components Removal/installation**

1. If any power steering fluid line has been disconnected anytime during the procedure, add ATF M-III or equivalent (e.g. Dexron<sup>®</sup>III), bleed the fluid line, and inspect for leakage after the procedure has been completed.

#### WHEEL ALIGNMENT 02-11

WHEEL ALIGNMENT	Camber and Caster Adjustment	02–11–2
PRE-INSPECTION 02–11–1	Total Toe-in Adjustment	02–11–2
FRONT WHEEL ALIGNMENT 02-11-1	REAR WHEEL ALIGNMENT	02–11–3
Specification (Unloaded)*1 02-11-1	Specification (Unloaded)*1	02–11–3
Maximum Steering Angle Adjustment . 02-11-1	Total Toe-in Adjustment	02–11–3

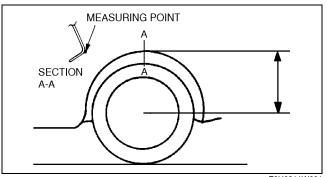
#### WHEEL ALIGNMENT PRE-INSPECTION

A3U021101013W01

- 1. Inspect the tire inflation, and adjust to the recommended pressure as necessary.
- 2. Inspect the front wheel for bearing play and correct it if necessary. (See 03-11-1 Wheel Bearing Play Inspection.)
- 3. Inspect the wheel and tire runouts. (See 02-50-1 SUSPENSION TECHNICAL DATA.)
- 4. Inspect the ball joints and steering linkage for excessive looseness.
- 5. Shake the vehicle to inspect the operation of the shock absorbers.

## Note

- The vehicle must be on level ground and unloaded.
- Unloaded ... Fuel tank is full. Engine coolant and engine oil are at specified levels. Spare tire, jack and tools are in designated positions.
- 6. Measure the height from the center of the wheel to the fender brim. The difference between the left and right measurement must not exceed 10 mm {0.39 in}.



Z3U0211W001

# FRONT WHEEL ALIGNMENT Specification (Unloaded)\*1

A3U021101015W01

Itom		Fuel gauge indication				
item	Item		1/4	1/2	3/4	Full
Total toe-in	(mm {in})	2±4 {0.08±0.16}				
Total toe-III	(degree)			0°12'±24'		
Maximum ataaring angle	Inner	37°±3°				
Maximum steering angle	Outer	33°±3°				
Caster angle*2		1°46'±1°	1°49'±1°	1°51'±1°	1°53'±1°	1°56'±1°
Camber angle*2		-0°48'±1° -0°49'±			9'±1°	
Kingpin angle (reference value)		12°34'		12°	35'	12°36'

<sup>\*1 :</sup> Engine coolant and engine oil are at specified levels. Spare tire, jack and tools are in designated positions.

# **Maximum Steering Angle Adjustment**

- 1. Loosen the tie-rod end locknuts.
- 2. Remove the steering gear boot clamp.

02-11

<sup>\*2 :</sup> Difference between left and right must not exceed 1°30'.

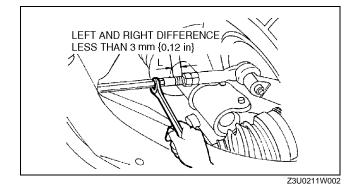
# WHEEL ALIGNMENT

Turn the left and right tie rods to equalize the length L.

# Maximum left/right difference 3 mm {0.12 in}

#### Note

- Turn the tie rods equally.
- 4. Turn the tie rod to provide the correct maximum steering angle.
- 5. Tighten the tie-rod end locknuts.



# **Tightening torque**

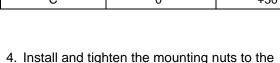
68.7—98.0 N·m {7.0—10.0 kgf·m, 50.7—72.3 ft·lbf}

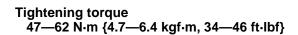
- 6. Verify that the boot is not twisted, and install the boot clamp.
- 7. Adjust the toe-in after adjusting the steering angle.

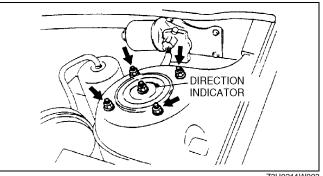
# **Camber and Caster Adjustment**

- 1. Jack up the front of the vehicle and support it on safety stands.
- 2. Remove the mounting block nuts.
- 3. Push the mounting block downward, and turn it to the desired position.

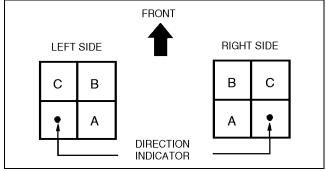
Direction indicator	Adjustment valve from original position		
position	Camber angle	Caster angle	
Α	+30'	0°	
В	+30'	+30'	
С	0°	+30'	







Z3U0211W003



Z3U0211W004

### **Total Toe-in Adjustment**

specified torque.

- 1. Center the steering wheel and confirm that the vehicle wheels/tires are pointing straight.
- 2. Remove the steering gear boot clamp.
- 3. Loosen the left and right tie rod locknuts and turn the tie rods equally. Both tie rods are right threaded, so turning the right tie rod toward the front of the vehicle and the left toward the rear increases toe-in.

#### Note

- Turning both tie rods one complete turn changes toe-in by about 6 mm {0.24 in} (0°36').
- 4. Tighten the tie rod locknuts to the specified torque.

# Tightening torque 68.7—98.0 N·m {7.0—10.0 kgf·m, 50.7—72.3 ft·lbf}

5. Verify that the boot is not twisted, and install the boot clamp.

### **REAR WHEEL ALIGNMENT**

# Specification (Unloaded)\*1

Fuel gauge indication		Empty	1/4	1/2	3/4	Full
Total toe-in	(mm {in})		2	2±4 {0.08±0.16	5}	
Total toe-III	(degree)	0°12'±24'				
Camber angle*2	14, 15 inch wheel	-0°23'±1°	-0°25'±1°	-0°27'±1°	-0°29'±1°	-0°31'±1°
(reference value)	16 inch wheel	-0°27'±1°	-0°29'±1°	-0°31'±1°	-0°32'±1°	-0°34'±1°
Thrust angle (reference value)				0°±48'		

- \*1 : Engine coolant and engine oil are at specified levels. Spare tire, jack and tools are in designated positions. Adjust to the median when carrying out wheel alignment.
- \*2 : Difference between left and right must not exceed 1°30'.

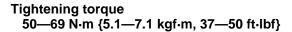
# **Total Toe-in Adjustment**

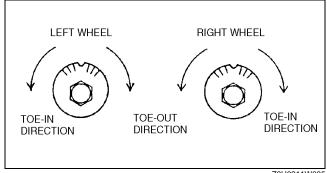
- 1. Loosen the cam nut on the lateral link.
- 2. Turn the adjusting cam bolt as indicated to adjust the toe-in.

	Left wheel	Right wheel
Toe-in direction	Counterclockwise	Clockwise
Toe-out direction	Clockwise	Counterclockwise

### **Note**

- Turning the adjusting cam bolt one complete turn changes the toe-in about 3.0 mm {0.12 in} (0°18').
- 3. Tighten the cam nut.





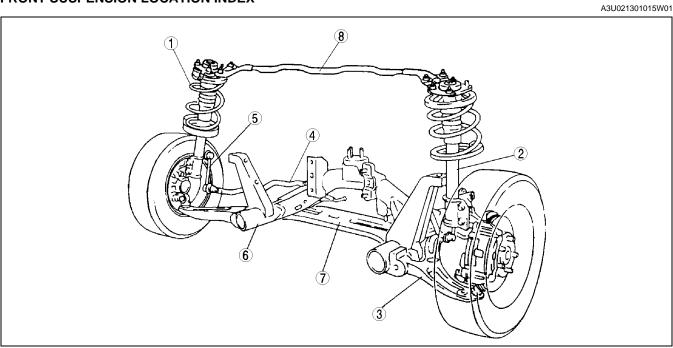
Z3U0211W005

A3U021101016W01

# 02–13 FRONT SUSPENSION

RONT SUSPENSION LOCATION	Lower Arm Bushing (Rear) Installation
INDEX 02–13–1	Note <b>02–13–6</b>
RONT SHOCK ABSORBER AND COIL	Lower Arm Bushing (Front) Installation
SPRING REMOVAL/INSTALLATION 02-13-2	Note <b>02–13–6</b>
Piston Rod Nut Removal Note 02–13–3	Dust Boot Installation Note
Coil Spring Installation Note 02–13–3	FRONT LOWER ARM INSPECTION 02-13-7
Front Shock Absorber and Spring	FRONT STABILIZER
Installation Note 02–13–4	REMOVAL/INSTALLATION02-13-7
RONT SHOCK ABSORBER	Stabilizer Bracket Installation Note 02–13–8
INSPECTION	STABILIZER CONTROL LINK (FRONT)
RONT SHOCK ABSORBER	INSPECTION02–13–8
DISPOSAL	FRONT CROSSMEMBER
FRONT LOWER ARM	REMOVAL/INSTALLATION02-13-8
REMOVAL/INSTALLATION 02–13–5	Crossmember Component Removal
Dust Boot Removal Note	Note02–13–9
Lower Arm Bushing (Front) Removal	TRANSVERSE MEMBER (ZM (ATX), FS)
Note	REMOVAL/INSTALLATION02-13-9
Lower Arm Bushing (Rear) Removal	FRONT STRUT BAR
Note	REMOVAL/INSTALLATION02-13-10

# FRONT SUSPENSION LOCATION INDEX



A3U0213W001

1	(See 02–13–2 FRONT SHOCK ABSORBER AND COIL SPRING REMOVAL/INSTALLATION)
2	Front shock absorber (See 02–13–4 FRONT SHOCK ABSORBER INSPECTION) (See 02–13–4 FRONT SHOCK ABSORBER DISPOSAL)
3	Front lower arm (See 02–13–5 FRONT LOWER ARM REMOVAL/ INSTALLATION) (See 02–13–7 FRONT LOWER ARM INSPECTION)

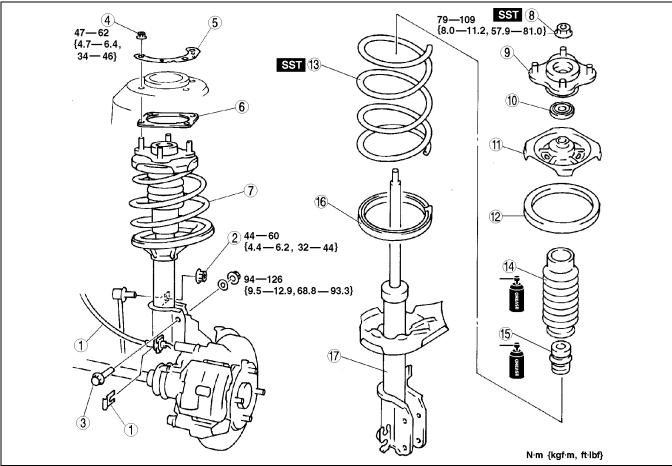
4	Front stabilizer (See 02–13–7 FRONT STABILIZER REMOVAL/ INSTALLATION)
5	Stabilizer control link (See 02–13–8 STABILIZER CONTROL LINK (FRONT) INSPECTION)
6	Front crossmember (See 02–13–8 FRONT CROSSMEMBER REMOVAL/INSTALLATION)
7	Transverse member (See 02–13–9 TRANSVERSE MEMBER (ZM (ATX), FS) REMOVAL/INSTALLATION)
8	Front strut bar (5HB only) (See02–13–10 FRONT STRUT BAR REMOVAL/ INSTALLATION)

# FRONT SHOCK ABSORBER AND COIL SPRING REMOVAL/INSTALLATION

A3U021304910W01

### Caution

- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the harness if it is pulled by mistake. Before performing the following procedures, remove the ABS wheel-sensor (axle side) and set it to an appropriate place where the sensor will not be pulled by mistake while servicing the vehicle.
- 1. Remove in the order indicated in the table.
- 2. Install in the reverse order of removal.
- 3. Inspect the front wheel alignment.
  - If not as specified, adjust the front wheel alignment. (See 02-11-1 FRONT WHEEL ALIGNMENT.)



Z3U0213W002

1	Clip and brake hose
2	Nut (Stabilizer control link)
3	Shock absorber bolt
4	Nut
5	Stiffener
6	Sheet
7	Front shock absorber and spring (See 02–13–4 Front Shock Absorber and Spring Installation Note)
8	Piston rod nut (See 02–13–3 Piston Rod Nut Removal Note)

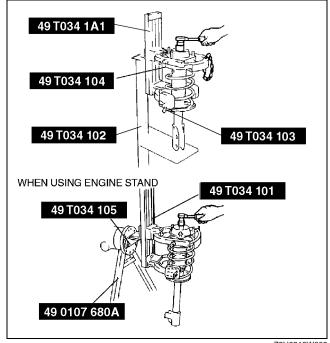
9	Mounting rubber
10	Bearing
11	Upper spring seat
12	Upper spring seat rubber
13	Coil spring (See 02–13–3 Coil Spring Installation Note)
14	Dust Boot
15	Bound stopper
16	Lower spring seat rubber
17	Shock absorber

# Piston Rod Nut Removal Note

1. Protect the coil spring using a piece of cloth, then set the SSTs.

#### Warning

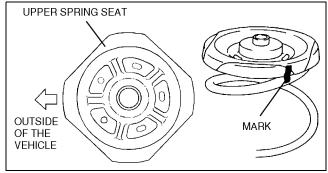
- Removing the piston rod nut is dangerous. The shock absorber and spring could fly off under tremendous pressure and cause serious injury or death. Secure the shock absorber in the SSTs before removing the coil spring nut.
- 2. Compress the coil spring using the SSTs, and remove the piston rod nut.



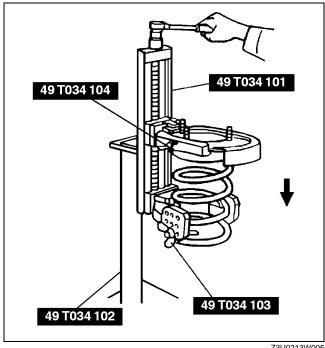
#### Z3U0213W003

# **Coil Spring Installation Note**

- 1. Temporarily install the coil spring, upper spring seat rubber and upper spring seat on the shock absorber so that the lower end of the coil spring is seated on the step of the lower spring seat.
- 2. Mark the coil spring, upper spring seat rubber and upper spring seat for proper installation as shown in the figure.
- 3. Align the marks of the coil spring, upper spring seat rubber and upper spring seat. Protect the coil spring and upper seat spring using a piece of cloth, then set the SSTs.
- 4. Compress the coil spring using the **SSTs**.
- 5. Install the lower spring seat rubber on the lower spring seat.
- 6. Install the shock absorber so that the lower end of the coil spring is seated on the step of the lower spring seat.
- 7. Make sure that the marks on the shock absorber and upper spring seat are aligned.
- 8. Install the bearing, mounting rubber, and piston rod nut as shown in the figure, then remove the SSTs.

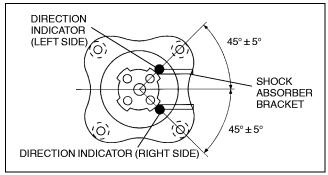


Z3U0213W004



Z3U0213W005

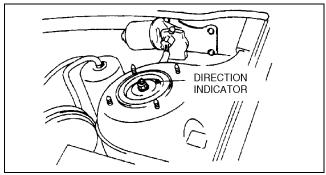
Piston rod nut tightening torque 79—109 N·m {8.0—11.2 kgf·m, 57.9—81.0 ft·lbf}



X3U213WA4

## Front Shock Absorber and Spring Installation Note

1. Face the mounting block direction indicator toward the rear outboard position, and install the shock absorber.



Z3U0213W006

A3U021334700W01

### FRONT SHOCK ABSORBER INSPECTION

- 1. Remove the front shock absorber from the vehicle.
- 2. Inspect for damage and oil leakage.
- 3. Inspect the rubber bushing for deterioration and wear.
- 4. Compress and extend the shock piston at least 3 times. Verify that the operational force does not change and that there is no unusual noise.
  - (1) Compress the shock absorber piston and release it.
  - (2) Verify that the piston extends fully at a normal speed.
    - If not as specified, replace the shock absorber.

# FRONT SHOCK ABSORBER DISPOSAL

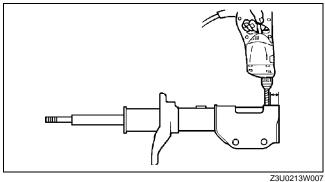
A3U021334700W02

# Warning

- Whenever drilling into a shock absorber, wear protective eye wear. The gas in the shock absorber is pressurized, and could spray metal chips into the eyes and face when drilling.
- 1. Clamp a shock absorber flat or with the piston downwards.
- 2. Drill a 2—3 mm {0.08—0.11 in} hole at a point 20-30 mm {0.8-1.1 in} from the bottom of the tube, so that the gas can escape.
- 3. Turn the hole downwards.
- 4. The oil can be collected by moving the piston rod several times up and down and cutting the tube at the end.
- 5. Dispose of waste oil according to the waste disposal law.

# Note

- Shock absorber gas is nitrogen gas.
- · Shock absorber oil is mineral oil.

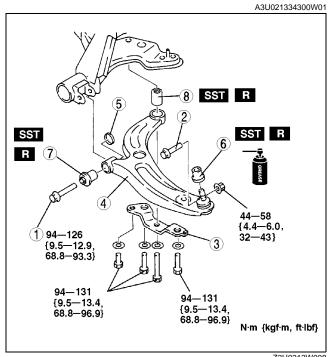


# FRONT LOWER ARM REMOVAL/INSTALLATION

1. Remove in the order indicated in the table.

	move in the erael inaleated in the table.
1	Bolt
2	Bolt (Lower arm ball joint)
3	Bracket
4	Lower arm component
5	Stopper
6	Dust boot (See 02–13–5 Dust Boot Removal Note) (See 02–13–7 Dust Boot Installation Note)
7	Lower arm bushing (front) (See 02–13–5 Lower Arm Bushing (Front) Removal Note) (See 02–13–6 Lower Arm Bushing (Front) Installation Note)
8	Lower arm bushing (rear) (See 02–13–6 Lower Arm Bushing (Rear) Removal Note) (See 02–13–6 Lower Arm Bushing (Rear) Installation Note)

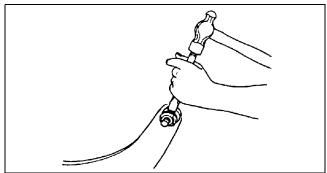
2. Install in the reverse order of removal.



Z3U0213W008

### **Dust Boot Removal Note**

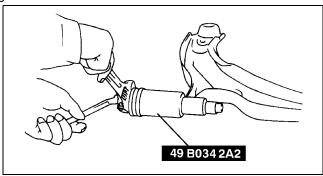
1. Remove the dust boot using a chisel, being careful not to damage the ball joint and the arm.



Z3U0213W009

# Lower Arm Bushing (Front) Removal Note

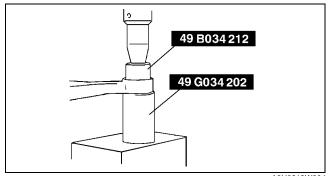
- 1. Cut away the projecting rubber of the lower arm bushing.
- 2. Set the SST onto the lower arm, and remove the bushing.



A3U0213W003

# Lower Arm Bushing (Rear) Removal Note

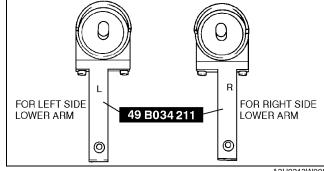
1. Remove the lower arm bushing using the **SSTs** and a press.



A3U0213W004

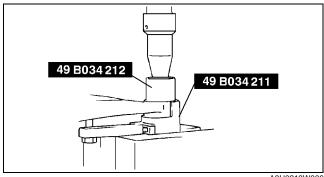
# Lower Arm Bushing (Rear) Installation Note

- 1. Align the mark of the lower arm and the small projection of the lower arm bushing (rear) as shown in the figure.
- 2. Set the lower arm onto the SST (49 B034 211).



A3U0213W005

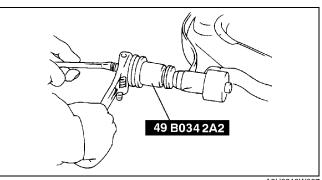
3. Press the new lower arm bushing using the SST (49 B034 212).



A3U0213W006

# Lower Arm Bushing (Front) Installation Note

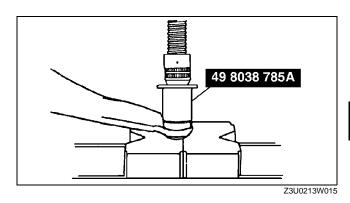
1. Install the new bushing, and pull it into the lower arm using the SST.



A3U0213W007

#### **Dust Boot Installation Note**

- 1. Wipe the grease off the ball stud.
- 2. Fill the inside of the new dust boot with grease.
- 3. Press the boot onto the ball joint using the SST.
- 4. Wipe away the excess grease.

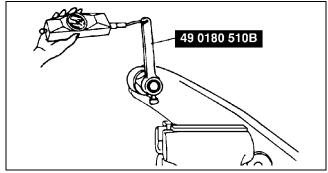


A3U021334300W02

# FRONT LOWER ARM INSPECTION

- 1. Remove the lower arm from the vehicle.
- 2. Inspect for damage, cracks, and bending.
- 3. Inspect the ball joint rotation torque.
  - (1) Rotate the ball joint 5 times.
  - (2) Connect the SST to the ball stud, and measure the rotation torque using a pull scale.
    - Replace it if not within the specification.

Ball joint preload 1.0-4.9 N·m {10-50 kgf·cm, 9-43 in·lbf} Pull scale reading 14—44 N {1.4—4.5 kgf, 3—10 lbf}



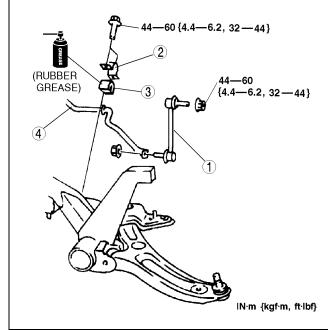
A3U0213W008

# FRONT STABILIZER REMOVAL/INSTALLATION

- 1. Remove the crossmember. (See 02–13–8 FRONT CROSSMEMBER REMOVAL/INSTALLATION.)
- 2. Remove in the order indicated in the table.

1	Stabilizer control link
2	Stabilizer bracket (See 02–13–8 Stabilizer Bracket Installation Note)
3	Stabilizer bushing
4	Front stabilizer

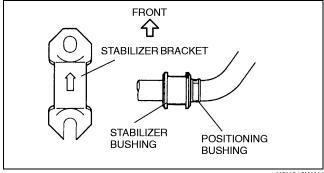
- 3. Install in the reverse order of removal.
- 4. Inspect the front wheel alignment and adjust it if necessary.



Z3U0213W016

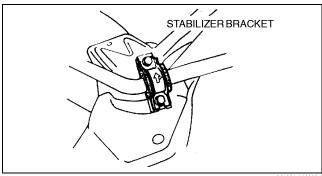
#### Stabilizer Bracket Installation Note

- 1. Apply rubber grease to the inside surface of the stabilizer bushing.
- 2. Align the bushing with the inside of positioning plate on the stabilizer bar.



X3U213WAH

3. Install the stabilizer bracket.



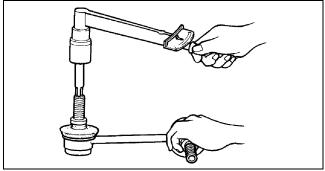
X3U213WAJ

A3U021334150W01

# STABILIZER CONTROL LINK (FRONT) INSPECTION

- 1. Remove the stabilizer control link from the vehicle.
- 2. Inspect for bending and damage.
- 3. Measure the ball joint starting torque.
  - (1) Rock the ball joint stud side to side 10 times.
  - (2) Rotate the ball joint stud 10 times.
  - (3) Measure the starting torque using a suitable Allen socket and a torque wrench.

Starting torque 0.2—2.5 N·m {1.4—26.0 kgf·cm, 1.3—22.0 in·lbf}



X3U213WAK

# FRONT CROSSMEMBER REMOVAL/INSTALLATION

1. For the MTX models, remove the change control rod and extension bar. (See 05–15A–4 MANUAL TRANSAXLE (MTX) REMOVAL/INSTALLATION [F25M-R].)

2. Remove the front exhaust pipe. (See 01–15–1 EXHAUST SYSTEM REMOVAL/INSTALLATION.) (See 01–15–1 EXHAUST SYSTEM REMOVAL/INSTALLATION.)

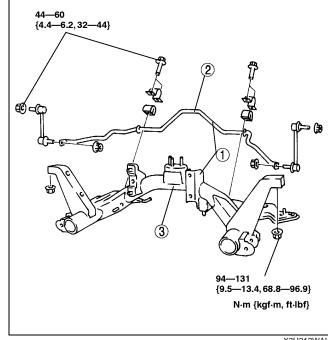
- Remove the transverse member. (See02–13–9 TRANSVERSE MEMBER (ZM (ATX), FS) REMOVAL/ INSTALLATION)
- 4. Remove the steering gear and linkage. (See 06–12–9 STEERING GEAR AND LINKAGE REMOVAL/INSTALLATION.)
- 5. Remove the front lower arm. (See 02-13-5 FRONT LOWER ARM REMOVAL/INSTALLATION.)

02-13-8

### 6. Remove in the order indicated in the table.

1	Crossmember component (See 02–13–9 Crossmember Component Removal Note)
2	Front stabilizer (See 02–13–7 FRONT STABILIZER REMOVAL/ INSTALLATION)
3	Front crossmember

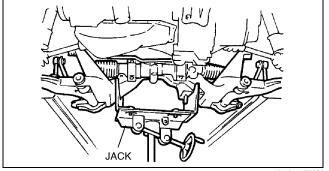
- 7. Install in the reverse order of removal.
- 8. Inspect the front wheel alignment as necessary.



X3U213WAL

# **Crossmember Component Removal Note**

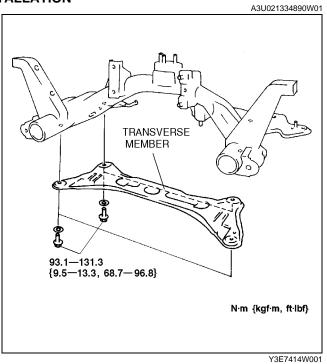
- 1. Support the crossmember using a jack and remove the bolts and nuts.
- 2. Remove the crossmember component.



X3U213WAM

# TRANSVERSE MEMBER (ZM (ATX), FS) REMOVAL/INSTALLATION

- 1. Remove the transverse member.
- 2. Install the transverse member.

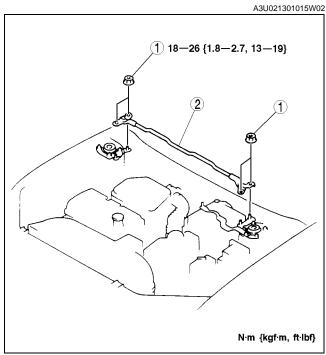


# FRONT STRUT BAR REMOVAL/INSTALLATION

1. Remove in the order indicated in the table.

1	Nut
2	Front strut bar

2. Install in the reverse order of removal.



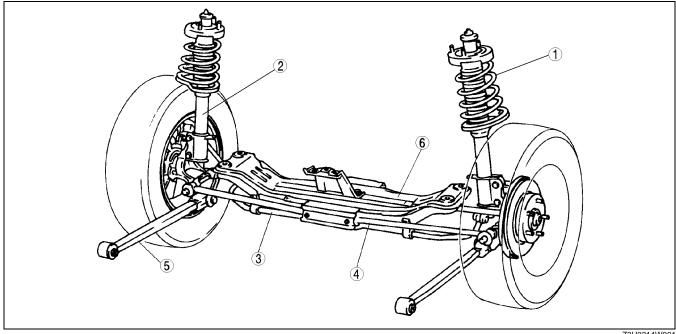
Y3A7414W002

# 02–14 REAR SUSPENSION

REAR SUSPENSION LOCATION INDEX	Stabilizer Bushing and Bracket Installation Note02–14–4 STABILIZER CONTROL LINK (REAR) INSPECTION
Coil Spring Installation Note 02–14–3 REAR SHOCK ABSORBER	LATERAL LINK AND TRAILING LINK REMOVAL/INSTALLATION02-14-5
INSPECTION	Nut, Cam Plate and Adjusting Cam  Bolt Removal Note
DISPOSAL	Front Lateral Link Removal Note02–14–6 Nut, Cam Plate, and Adjusting Cam
REMOVAL/INSTALLATION 02–14–4	Bolt Installation Note

# **REAR SUSPENSION LOCATION INDEX**

A3U021401016W01



1	Rear shock absorber and coil spring (See 02–14–2 REAR SHOCK ABSORBER AND SPRING REMOVAL/INSTALLATION)
2	Rear shock absorber (See 02–14–3 REAR SHOCK ABSORBER INSPECTION) (See 02–14–3 REAR SHOCK ABSORBER DISPOSAL)
3	Rear stabilizer and stabilizer control link (See 02–14–4 REAR STABILIZER REMOVAL/ INSTALLATION) (See 02–14–4 STABILIZER CONTROL LINK (REAR) INSPECTION)

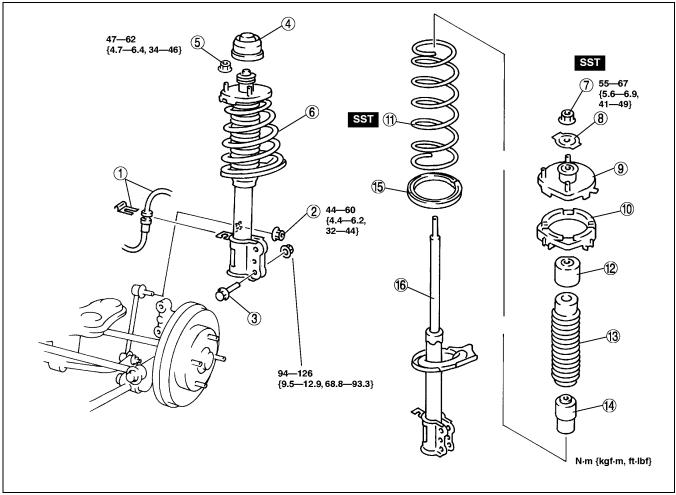
4	Lateral link (See 02–14–5 LATERAL LINK AND TRAILING LINK REMOVAL/INSTALLATION)
5	Trailing link (See 02-14-5 LATERAL LINK AND TRAILING LINK REMOVAL/INSTALLATION)
6	Rear crossmember (See 02–14–6 REAR CROSSMEMBER REMOVAL/ INSTALLATION)

#### REAR SHOCK ABSORBER AND SPRING REMOVAL/INSTALLATION

A3U021405910W01

### Caution

- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the harness if it is pulled by mistake. Before performing the following procedures, remove the ABS wheel-speed sensor (axle side) and set it to an appropriate place where the sensor will not be pulled by mistake while servicing the vehicle.
- 1. For the 4SD, remove the rear seat belt. (See 08–11–2 REAR SEAT BELT REMOVAL/INSTALLATION.) For the 5HB, remove the trunk side trim. (See 09–17–15 TRUNK SIDE TRIM REMOVAL/INSTALLATION)
- 2. Remove in the order indicated in the table.
- 3. Install in the reverse order of removal.



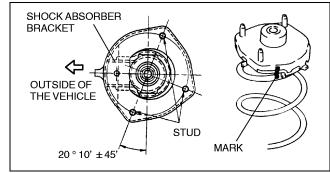
X3U214WA0

1	Clip and brake hose
2	Stabilizer control link nut
3	Shock absorber bolt
4	Сар
5	Nut
6	Rear shock absorber and spring
7	Piston rod nut (See 02–13–3 Piston Rod Nut Removal Note)
8	Washer

9	Mounting rubber
10	Upper spring seat
11	Coil spring (See 02–14–3 Coil Spring Installation Note)
12	Stopper seat
13	Dust cover
14	Bound stopper
15	Lower spring seat rubber
16	Rear shock absorber

# **Coil Spring Installation Note**

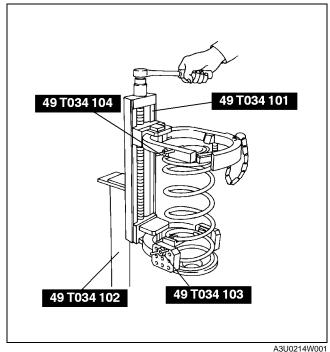
- 1. Temporarily install the coil spring, upper spring seat and mounting rubber on the shock absorber so that the lower end of the coil spring is seated on the step of the lower spring seat.
- 2. Mark the coil spring, upper spring seat and mounting rubber for proper installation as shown in the figure. (The following figure shows how to install the right side. Install the left side symmetrically.)
- Align the marks of the coil spring and upper spring seat rubber. Protect the coil spring and upper seat spring using a piece of cloth, then set the SSTs.



X3U214WA1

- 4. Compress the coil spring using the SSTs.
- 5. Install the lower spring seat rubber on the lower spring seat.
- 6. Install the shock absorber so that the lower end of the coil spring is seated on the step of the lower spring seat.
- 7. Align the marks of the mounting rubber and shock absorber.
- 8. Install the washer and piston rod nut, then remove the **SSTs**.

Piston rod nut tightening torque 55—67 N·m {5.6—6.9 kgf·m, 41—49 ft·lbf}



# A3U0214W001

#### REAR SHOCK ABSORBER INSPECTION

1. Inspect the rear shock absorber using the same procedure as the front shock absorber. (See 02–13–4 FRONT SHOCK ABSORBER INSPECTION.)

# **REAR SHOCK ABSORBER DISPOSAL**

3U021428700W02

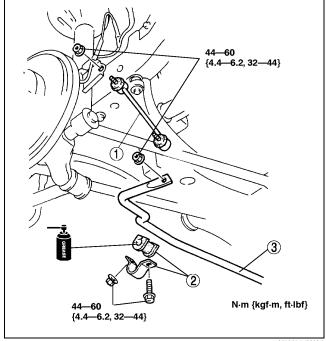
1. Dispose of the rear shock absorber using the same procedure as the front shock absorber. (See 02–13–4 FRONT SHOCK ABSORBER DISPOSAL.)

### REAR STABILIZER REMOVAL/INSTALLATION

1. Remove in the order indicated in the table.

1	Stabilizer control link
2	Stabilizer bushing and bracket (See 02–14–4 Stabilizer Bushing and Bracket Installation Note)
3	Rear stabilizer

2. Install in the reverse order of removal.

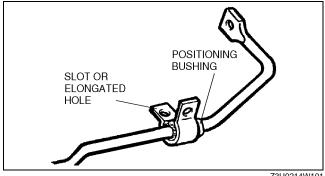


X3U214WA3

A3U021428100W01

# **Stabilizer Bushing and Bracket Installation Note**

- 1. Align the bushing with the positioning bushing on the stabilizer bar.
- 2. Temporarily install the stabilizer bracket so that the slot (or elongated hole) faces downward.
- 3. Tighten the stabilizer bracket nut, then bolt.



Z3U0214W101

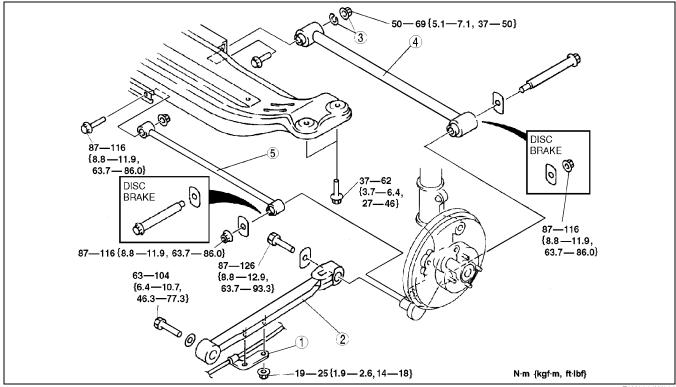
# STABILIZER CONTROL LINK (REAR) INSPECTION

A3U021434150W01

1. Inspect the rear stabilizer control link in the same procedure as the front stabilizer control link inspection. (See 02-13-8 STABILIZER CONTROL LINK (FRONT) INSPECTION.)

### Caution

- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the harness if it is pulled by mistake. Before performing the following procedures, remove the ABS wheel-speed sensor (axle side) and fix it to an appropriate place where the sensor will not be pulled by mistake while servicing the vehicle.
- 1. Remove in the order indicated in the table.
- 2. Install in the reverse order of removal.
- 3. Inspect the rear wheel alignment and adjust it as necessary.



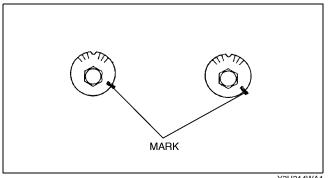
Z3U0214W006

1	Parking brake cable bracket
2	Trailing link
3	Nut, cam plate and adjusting cam bolt (See 02–14–5 Nut, Cam Plate and Adjusting Cam Bolt Removal Note) (See 02–14–6 Nut, Cam Plate, and Adjusting Cam Bolt Installation Note)

5 Front lateral link (See 02–14–6 Front Lateral Link Removal Note	)

# Nut, Cam Plate and Adjusting Cam Bolt Removal Note

1. Before loosening the nut, make a mark on the cam plate and the crossmember for reference during installation.

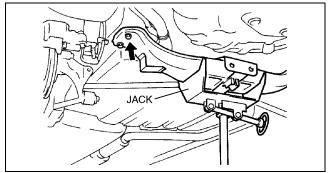


Y3U214WA1

# REAR SUSPENSION

# **Front Lateral Link Removal Note**

- 1. Support the rear crossmember using a jack, then remove the crossmember bolts.
- Lower the crossmember to remove the lateral link bolt.



#### X3U214WA7

# Nut, Cam Plate, and Adjusting Cam Bolt Installation Note

- 1. Install the cam plate so that the notch faces the same direction as the adjusting cam bolt.
- 2. Align with the mark made before removing the adjusting cam bolt.
- 3. Tighten the nut.

Tightening torque 50—69 N·m {5.1—7.1 kgf·m, 37—50 ft·lbf}

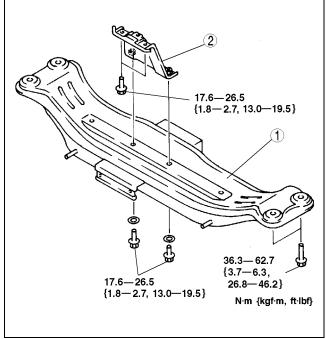
#### REAR CROSSMEMBER REMOVAL/INSTALLATION

A3U021428400W01

- 1. Remove the rear stabilizer. (See 02–14–4 REAR STABILIZER REMOVAL/INSTALLATION.)
- 2. Remove the front and rear lateral links. (See 02–14–5 LATERAL LINK AND TRAILING LINK REMOVAL/INSTALLATION.)
- 3. Remove in the order indicated in the table.

1	Rear crossmember
2	Crossmember bracket

- 4. Install in the reverse order of removal.
- 5. Inspect the rear wheel alignment and adjust it as necessary.



Z3U0214W100

### 02-50 **TECHNICAL DATA**

SUSPENSION TECHNICAL DATA..... 02-50-1

### SUSPENSION TECHNICAL DATA

A3U025001013W01

	14.	em		Specification A3U025001013W01			
WHEEL ALIG		em		Specification			
WHEEL ALIG	NIVIEIN I		Inner		37°±3°		
Front wheel alignment (Unloaded)*1	Maximum steering angle Outer  Total toe-in  (mm {in})			33°±3°			
				2±4 {0.08±0.16}			
				0°12′±24′			
	(degree)			-0°49′±1°			
	Camber angle*2						
	Caster angle*2			1°56′±1°			
	Kingpin angle (Reference value)			12°36′			
Rear wheel alignment	Lotal toe-in		(mm {in})	2±4 {0.08±0.16}			
			(degree)	0°12′±24′			
(Unloaded)*1	Camber angle*2 (Reference value)			$-0^{\circ}31'\pm1^{\circ}(14,15$ inch wheel), $-0^{\circ}34'\pm1^{\circ}(16$ inch wheel)			
(Ornoadou)	Thrust angle (Reference value)			0°±48′			
WHEELS AND	TIRES						
	Size			14×5 1/2JJ	15×6JJ	16×6JJ	
Standard tire	Offset (mm {in})			45 {1.77}		50 {1.97}	
wheel	Pitch circle diameter (mm {in})			100 {3.94}		114.3 {4.50}	
	Material		Steel	Steel or aluminum alloy	Aluminum alloy		
	Size			P185/65R14 85S	P195/55R15 84V	P195/50R16 83V	
Standard tire	Air pressure (kPa {kgf/cm², psi})			220 {2.2, 32}			
	Remaining tread (mm {in})			1.6 {0.063}			
	Wheel and Radial direction (mm {in})			1.5 {0.06 max.}			
Standard tire wheel and tire	tire runout Lateral direction (mm {in})		Steel: 2.5 {0.10} max., Aluminum: 2.0 {0.08} max.				
wheel and the	Wheel unbalance*3 (g {oz})			10 {0.35} max.	9 {0.32} max.	8 {0.30} max.	
_	Size					15×4T	
Temporary	Offset (mm {in})			40 {1.58}		45 {1.77}	
spare tire wheel	Pitch circle diameter (mm {in})			100 {3.94}		114.3 {4.50}	
Wilcon	Material			Steel			
Tomporoni	Size			T125/70 D14 T115/70 D15			
Temporary spare tire	Air pressure (kPa {kgf/cm², psi})			420 {4.2, 60}			
Temporary	Wheel and	Radial direction	(mm {in})	2.0 {0.08} max.			
spare tire wheel and tire	tire runout	Lateral direction	(mm {in})	2.5 {0.10} max.			
FRONT SUSP	ENSION						
Lower arm ball joint rotation torque (Pull scale reading) (N {kgf, lbf})			14—44 {1.4—4.5, 3—10}				
Stabilizer control link rotation torque		(N·m {kgf·cm, in·lbf})		0.2—2.5 {1.4—26.0, 1.3—22.0}			
REAR SUSPE	NSION		l				
	Stabilizer control link rotation torque (N·m {kgf·cm, in·lbf})				0.2—2.5 {1.4—26.0, 1.3—22.0}		

<sup>\*1 :</sup> Fuel tank is full. Engine coolant and engine oil are at specified levels. Spare tire, jack and tools are in designated positions. Adjust to the median when carrying out wheel alignment.
\*2 : Difference between left and right must not exceed 1°30'.
\*3 : 1 balance weight: max. 60 g {2.12 oz}. If the total weight exceeds 100 g {3.53 oz} on one side, rebalance after moving the tire around on the rim. Do not use more than 2 balance weights on the inner or outer side of the wheel.

# 02-60 SERVICE TOOLS

SUSPENSION SST . . . . . . . . . . . . 02-60-1

#### SUSPENSION SST

A3U026001013W01 49 0180 510B 49 8038 785A 49 T034 1A0 Preload Dust boot Coil spring compressor set measuring installer attachment 49 T034 101 49 T034 102 49 T034 103 Stand (Part of Hook (Part of 49 Spring 49 T034 1A0) T034 1A0) compressor (Part of 49 T034 1A0) 49 T034 104 49 T034 105 49 0107 680A Support (Part of Engine stand Attachment 49 T034 1A0) 49 B034 2A2 49 B034 211 49 B034 212 Rubber bushing Rubber bushing Rubber bushing replacer set installer replacer 49 G034 202 Support block